REMARKS

The above-referenced application has been reviewed in light of the Examiner's Office Action dated March 3, 2006. Claims 1, 4, 7-17, 19-29, 30 and 31 have been amended; and new Claims 34-35 have been added. Accordingly, Claims 1-35 are currently pending in this application. The Examiner's reconsideration of the rejections is respectfully requested, particularly in view of the above amendments and the following remarks.

In accordance with the Office Action, Claims 8, 13, 22, 27, 30 and 32 are indicated as comprising allowable subject matter. The Examiner's indication of allowable subject matter is gratefully acknowledged.

In accordance with the Office Action, Claims 1-6, 29, 31 and 33 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,738,675 to Dai in view of U.S. Patent No. 6,131,166 to Wong-Insley. Claims 1, 4, 29 and 31 have been amended.

Claim 1 has been amended to clarify that the power-off mode is for a system-on-a-chip (SOC). SOC embodiments were set forth in the original specification. No new matter has been added.

Amended Claim 1 recites, *inter alia,* a "method of transmitting a working context, comprising ... *storing the working context in the non-volatile memory; and executing the power-off standby mode for the SOC*" (*emphasis* added).

The '675 patent to Dai is generally directed towards reduction of microprocessor power consumption with an on-die logic circuit. Unfortunately, Dai fails to teach or

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suggest "storing the working context in the *non-volatile memory*; and executing the

power-off standby mode *for the SOC*" as recited by Applicants' amended Claim 1

(*emphasis* added).

The '166 patent to Wong-Insley is generally directed towards a programming

framework for application level power management. One of ordinary skill in the

pertinent art at the time of Applicant's invention would not have been motivated to

combine the teachings of Dai with those of Wong-Insley. This is because Wong-Insley

addresses only higher-level cross-platform system programming framework solutions,

and fails to address or enable such solutions for a semiconductor chip, such as the

microprocessor of Dai, for example, much less for a system-on-a-chip (SOC).

Even if one did combine the teachings of Dai with those of Wong-Insley, it would

not have resulted in Applicants' presently claimed invention. At column 11, lines 10-34,

Wong-Insley may show a "sleep state" that "*appears* to be off" "by removing power from,

or placing into low power modes, *as much* of the system *as possible*". Unfortunately,

Wong-Insley fails to teach or suggest how much is actually possible, much less turning

the power completely off for an entire system-on-a-chip (SOC). At lines 35-47 of the

same column, Wong-Insley may suggest a "suspend state" that uses no power for *some*

system components, but again fails to teach or suggest turning power off for an entire

SOC.

In addition, it is respectfully submitted that Wong-Insley fails to enable either the

"sleep" or "suspend" states at the hardware level, addressing only the higher-level

programming framework that would have had to rely on underlying hardware and

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associated methodology. This is to be expected since Wong-Insley was motivated by cross-platform programming solutions, and was not concerned with the actual implementation of such methods at the hardware level. It was enough for Wong-Insley to provide the *appearance* of power-off regardless of what was actually possible for the underlying methodology of any given hardware.

Accordingly, the recitations of Applicants' amended Claim 1, as well as amended Claims 29 and 31 that recite similar features, were neither taught nor suggested by the '675 patent to Dai in view of the '166 patent to Wong-Insley. Thus, amended Claims 1, 29 and 31 are in condition for allowance. In addition, the Examiner's attention is drawn to new dependent Claim 34, which recites "executing a power-off standby mode for the non-volatile memory".

In accordance with the Office Action, Claims 7, 9-12, 14-21, 23-26 and 28 stand rejected under 35 USC § 103(a) as being unpatentable over the '675 to Dai in view of the '166 to Wong-Insley, and further in view of U.S. Patent No. 6,363,501 to Tobias et al. Claims 7, 9-12, 14-17, 19-21, and 23-26 have been amended.

Claim 17 has been amended to clarify that the power-off mode is for a system-on-a-chip (SOC). SOC embodiments were set forth in the original specification. No new matter has been added.

Amended Claim 17 recites, *inter alia,* a "method of transmitting working context, comprising ... transmitting the working context stored in the memory during the *power-off* standby mode of the *SOC* to a *non-volatile memory* outside the SOC" (*emphasis* added).

The deficiencies of the '675 patent to Dai in view of the '166 patent to Wong-Insley were discussed above with respect to the rejection of Claim 1. Said deficiencies are similarly applicable here.

The '501 to Tobias et al. is generally directed towards saving peripheral device states of a microcontroller into an external memory. Although the '501 shows a low-power mode in which a plurality of module states from an integrated circuit (IC) are saved to memory before powering down the IC, Tobias et al. fail to cure the above-described deficiencies of Dai in view of Wong-Insley. In particular, the '501 to Tobias et al. fails to teach or suggest "transmitting the working context stored in the memory during the *power-off* standby mode of the *SOC* to a *non-volatile memory* outside the SOC", as recited in amended Claim 17 (*emphasis* added).

Accordingly, the recitations of Applicants' amended Claim 17, as well as amended Claims 20 and 24 that recite similar features, were neither taught nor suggested by the '675 patent to Dai in view of the '166 patent to Wong-Insley, further in view of the '501 patent to Tobias et al., whether taken alone or in combination with any of the other references of record in this case. Thus, amended Claims 17, 20 and 24 are in condition for allowance. In addition, the Examiner's attention is drawn to new dependent Claim 35, which recites "executing a power-off standby mode for the non-volatile memory".

Conclusion

Accordingly, it is respectfully submitted that amended or re-written independent Claims 1, 7, 12, 17, 20, 24, 29 and 31 are in condition for allowance for at least the reasons stated above. Since the remaining dependent Claims each depend from one of the above claims and necessarily include each of the elements and limitations thereof, it is respectfully submitted that these claims are also in condition for allowance for at least the reasons stated, and for reciting additional patentable subject matter. Thus, each of Claims 1-35 is in condition for allowance. All issues raised by the Examiner having been addressed, reconsideration of the rejections and an early and favorable allowance of this case is earnestly solicited.

Respectfully submitted,

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